posterior extremity ovate; anterior extremity rounded; internal margin simple, reddish purple within.

Length $3\frac{1}{2}$ lines, alt. 3, lat. $1\frac{3}{4}$ line.

Hab. Port Jackson; dredged near the "Sow and Pigs" (Brazier).

33. Perna confusa, n. sp. (Plate I. fig. 33.)

Shell transverse, concentrically finely striated, olive-brown, paler below the umbonal ridge; umbones tumid, approximate, and almost terminal, the umbonal ridge much raised and roundly angulate; dorsal margin straight, forming an angle with the posterior margin, which is arcuate above and rounded at the end; ventral margin slightly convex anteriorly, incurved behind.

Length 12 lines, alt. 6, lat. 5 lines. Hab. Lane Cove River, Port Jackson.

Something like P. fortunei, but four times the size, more pinched

and arcuate, and different in colour.

I adopt the original generic appellation of *Perna* as applied by Messrs. H. & A. Adams to this genus, which has priority over *Modiola* and *Volsella*. The *Perna* of Bruguières (1792) is *Isognomon* of Klein (1753).

34. LIMOPSIS BRAZIERI, n. sp. (Plate I. fig. 34.)

Shell depressedly subtriangularly ovate, subequilateral, whitish, concentrically finely ridged, and very faintly radiately striated, covered with a light brownish epidermis, which extends beyond the margin; umbones submedian, rather prominent.

Length $2\frac{1}{2}$ lines, alt. 2, lat. $1\frac{1}{2}$ line.

Hab. Dredged at the "Sow and Pigs," Port Jackson (Brazier).

- N.B. I have placed the typical specimens of all the foregoing species in the British Museum.
- 3. On a Collection of Birds from Savai and Rarotonga Islands in the Pacific. By Dr. G. Hartlaub, F.M.Z.S., and Dr. O. Finsch, C.M.Z.S.

[Received January 2, 1871.]

(Plate II.)

The meritorious efforts of Mr. Johann Cesar Godeffroy, head of the well-known Hamburgian firm, to explore, in connexion with his mercantile undertakings, various parts of our globe to which his vessels resort, have been again successful as regards the avifauna of the Pacific. We have had the pleasure of receiving two small collections of birds: one from the island Savai or Savaihi, made by Mr. Kubary; the other from the small island Rarotonga, made by Mr. A. Garrett.

Savai, the largest of the islands of the Navigator group, in which

Dr. Gräffe collected several years ago for Mr. Godeffroy, has remained nearly unexplored. Only two of its birds are known—namely Carpophaga pacifica and the remarkable Didunculus strigirostris. Although this latter rare bird is wanting amongst the collections sent by Mr. Kubary, we have had the pleasure to find in them a quite new grallatorial form, our Pareudiastes, remarkable for the shortness of its wings, which remind one of those of Habroptila. The other species collected by Mr. Kubary are all identical with species from Upolu.

The small island Rarotonga, only eight geographical miles in circumference (?), situated in 21° 22′ S. lat. and 159° 54′ W. long., belongs to the Cook, or Hervey group, and has, as far as we know, never been explored by naturalists. Of the seven species of birds collected by Mr. Garrett in this island, three prove to be new, namely Monarches dimidiatus, Aplonis cinerascens, and Ptilinopus rarotongensis; the others are widely distributed well-known Pacific birds.

We regret that neither of these collectors, whom we have the pleasure of first introducing to public notice, give any notes concerning the habits, breeding, and other peculiarities of these birds. Such additions would have made our paper still more interesting and

valuable.

Mr. Andrew Garrett is an American, who has been collecting already several years for the Smithsonian Institution and for the Cambridge Museum, U.S.A. For two years he has been employed for the Museum Godeffroy, and has explored the Paumotu archipelago and the Viti group. A large collection from the latter locality has been lost, unfortunately, by shipwreck.

Mr. Kubary is a Polish gentleman from Warsaw, who was a student of medicine, but was obliged to abandon his country, and was

sent in April 1869 by Mr. Godeffroy to the Pacific.

Species from Savai.

1. STRIX DELICATULA, Gould; Finsch et Hartl. Ornith. Centr. Polyn. p. 11.

One specimen (female), agreeing entirely with specimens from Upolu and the Vitis.

Long. al.	caud.	culm.	tars.	dig. med	
Long. al. 9" 6"	4" 0"	$9\frac{1}{2}$ 111	2" 3""	14'''	(Savai.)
10 0	4 3	$10\frac{\tilde{1}}{2}$	$2 \ 2\frac{1}{2}$	15	(Savai.)

"Irides black; bill hornish grey. Native name, O le lulu." (Kubary.)

From Savai we have already received this species in 1868, in a collection made by Dr. Gräffe.

2. Coriphilus fringillaceus (Gmel.); Finsch et Hartl. l. c. p. 25.

Nine specimens, amongst them males and females, which are alike in every respect, as already stated by Dr. Pickering. There is no

difference between these and specimens from the neighbouring island Samoa, and from the Wallis Island Uëa.

Long. al. caud. rostr.
$$3'' \ 11''' - 4'' \ 2'''$$
 $2'' \ 4''' - 2'' \ 6'''$ $5 - 5\frac{1}{2}'''$ (\circlearrowleft) $4 \ 1$ $2 \ 4$ $5\frac{1}{2}$ (\circlearrowleft)

- "Irides orange-yellow; bill orange-red; feet orange-yellow. Native name, Senga or Senga wao." (Kubary.)
- 3. HALCYON RECURVIROSTRIS (Lafresn.); Finsch et Hartl. l. c. p. 41.

Three males and one female; both sexes alike and agreeing with specimens from Upolu, as described by us (l. c.). As usual in the members of the subgenus Todiramphus, there exists a considerable variation in the intensity of the colours of the underparts. In one male these are, as well as the neck-band, pale buff, as figured in the Atlas of the United States Exploring Expedition (pl. 17); in another male the neck-band and the sides of the body are dark buff, chin and middle of breast and vent nearly white; whereas in a third male the whole underparts, except the chin, are uniform intense buff, darkest on the vent and under tail-coverts; the spot on the occiput also varies from white to dark buff.

Long. al. caud. rostr. latit. a bas.
$$2'' \ 11''' - 3'' \ 0'''$$
 $2'' - 2'' \ 3'''$ $13 - 14''' \ 6''' \ (3)$ $3 \ 1$ $2 \ 1$ 14 6 (9)

"Native name, Tistaro." (Kubary.)

This species was hitherto known only from the Island of Upolu.

4. Collocalia spodiopyga (Peale); Finsch et Hartl. l. c. p. 48. One specimen, similar to others from Upolu and the Vitis.

Long. al. rectr. ext. rectr. interm. tars.
$$4'' \ 5'''$$
 $23'''$ $18\frac{1}{2}'''$ $4'''$

5. RHIPIDURA NEBULOSA, Peale; Finsch et Hartl. l. c. p. 86.

One specimen in spirits, agreeing with the young bird from Upolu, as described by us, $l.\ c.$

Long. al. rectr. med. rectr. ext. rostr. a front. tars.
$$2'' 6'''$$
 $2'' 10'''$ $2'' 3'''$ $3\frac{1}{4}'''$ $8'''$

6. Amblynura cyanovirens (Peale).

Erythrura cyanovirens, Finsch et Hartl. l. c. p. 100.

Two specimens (in different plumages) of the young bird, but not

different from Upolu specimens.

One specimen resembles the young, as described by us (l. c.); but the whole head is dark green, like the back; some of the feathers on the vertex show narrow edgings of a dull red; the tail-feathers and the upper tail-coverts are also dull red; the upper mandible is black, with a lateral yellow basal spot; the lower mandible is yellow, tipped with black; feet dark. The other specimen, more advanced in age, has the vertex and cheeks already red as in the old bird, but the upper and under surfaces are still dark green, except a blue tinge on the chin and occiput; bill black, basal half of the lower mandible yellow; feet dark.

Long. al.	caud.	rostr.	alt. a bas.	tars.	dig. med.
Long. al. 2" 6""	13′′′	5'''	45""	81111	6''' (jun., Savai.)
2 3	12	c. 5	4~	8	5½ (jun., Savai.)
2 4	13	$5\frac{1}{4}$	$4\frac{1}{2}$	8	6 (ad., Upolu.)

7. LOBIOSPIZA NOTABILIS, Hartl. et Finsch, P. Z. S. 1870, p. 817, pl. xlix.

We are much pleased to find a second specimen of this interesting new form in the collection of Mr. Kubary, from Savai. This specimen, forwarded in spirits, agrees with the type as described *l. c.*, but convinces us also that that, as we had suspected, was only a young bird. The specimen from Savai is apparently in a more advanced state, showing the whole surface of head, the upper tail-coverts, and the outer edges of the rectrices of a dirty pale reddish brown, which colour, having lost its intensity by the influence of the spirit, has been formerly of a vivid red. We are assured of this point by having before us an old specimen of *Amblynura cyanovirens*, in which the red of the head has also changed into a dirty reddish brown. We have reason to suspect that the very old bird of *Lobiospiza* will show a far more brilliant and beautiful plumage.

8. STURNOIDES ATRIFUSCA (Peale); Finsch et Hartl. l. c. p. 107.

Three specimens, in every respect agreeing with specimens from Upolu. There exists some difference in size.

Long. al. caud. rostr. tars. dig. med.
$$5'' \ 4''' - 5'' \ 8'''$$
 $3'' \ 9''' - 4''$ $13'''$ $16 - 17'''$ $11\frac{1}{2} - 12'''$

- "Native name, Fuia." (Kubary.)
- 9. CARPOPHAGA PACIFICA (Gmel.); Finsch et Hartl. l. c. p. 142, et Journ. f. Orn. 1870, p. 134.

Three specimens, agreeing with specimens from Upolu and Tongatabu, and varying in the same way.

One, an old male, with a well-marked protuberance on the base of the bill, resembles a specimen from Upolu, except that the cheeks

are also tinged with a delicate vinaceous hue.

Two other specimens, labelled "young males," without a knob, show the head and neck darker grey than in the adult bird. In one the grey of the underparts is tinged very faintly with vinaceous; in the other this colour already exists, but much less vivid than in the adult. The feet are dark brown in the young bird.

Long. al. 9" 2"	caud.	culm.	tars.	dig. med.	
9" 2"	$5'' \ 8'''$	10골!!!	14""	15""	(& ad., Savai.)
8 8	5 4	10	14	16	(& jun., Savai.)
8 4	5 5	10	14	16	(& jun., Savai.)
8 7	4 8	10	14		(jun., Rarotonga.)





PAREUDIASTES PACIFICUS.

"Bill black; iris black; feet red. Native name, Fiaui, or com-

monly Lubé." (Kubary.)

Some interesting notes on the habits of the Lubé in Tongatabu have been published by Dr. Gräffe (Journ. f. Orn. 1870, p. 408).

10. RALLUS PECTORALIS, Less.; Finsch et Hartl. l. c. p. 156.

Four specimens, perfectly identical with others from Upolu, the

Vitis, Tongatabu, and Australia.

In two specimens no sign of the cinnamomeous pectoral band is visible; two specimens show this band strongly indicated, although not yet fully developed. The small white spots on the feathers of the upper parts in three specimens form on the basal portion of the hind neck regular narrow cross lines, which in one specimen are still visible on the upper portion of the mantle.

Long. al. caud. culm. tars. dig. med. 5''-5'' 5''' 1'' 11'''-2'' 5''' 12-16''' 18-20''' 16-19'''

"Bill reddish grey; iris red. Native name Vea." (Kubary.)

That Rallus forsteri, Hartl., is identical with R. pectoralis we have proved already (P. Z. S. 1869, p. 548, and Journ. f. Orn. 1870, p. 136). We must also express our doubts concerning Rallus hypoleucus, nob. (l. c. p. 163), based upon the "Philippine Rail, var. B," Latham, which seems to be nothing more than an albinism of R. pectoralis, as suspected by Mr. G. R. Gray.

PAREUDIASTES*, gen. nov.

Char. gen.—Rostrum ut in genere Gallinula, sed ptilosi ab oculis fere ad nares usque producta: scutello frontali parvo, postice rotundato. Alæ brevissimæ, obtusæ, truncatæ, remigibus 3-6 æquali longitudine. Cauda brevissima, lacera, decomposita. Pedes minores quam in Gallinulis; digitus medius tarso brevior, externus interno paullo longior; unguibus multo magis curvatis quam in genere Gallinula.

11. PAREUDIASTES PACIFICUS, sp. nov. (Plate II.)

Obscure plumbeo-ardesiaca; margine frontali et regione periophthalmica holosericeo-nigris, loris plumulis nigris rarius obsitis; occipite et dorso fusco-olivascente lavatis; glabella dilute flava; rostro dilute rubente; pedibus pallide rubris; alis valde truncato-abbreviatis; cauda vix conspicua.

Long. circa 10", rost. a fr. 13", al. 4"2", tars. 16", dig. med.

c. ung. 1" 8".

Head, neck, and under surface dark slate-colour, on the flanks and anal regions changing into olivaceous black; under tail-coverts pure black; margin of the frontal shield, lores, and space round the eyes covered with short velvet-like feathers of a pure black; sides of head, chin, and upper portion of throat also black; occiput, hind neck, and mantle dark olive-brown; rump, upper tail-coverts, and the

^{* &}quot;Pareudiastes" (antiquorum) is a water-bird, which comes only in fine weather to land.

rudimentary soft tail-feathers olivaceous black; primaries and secondaries dark brownish black; coverts of the remiges and upper quill-coverts dark olive-brown, somewhat darker than the back; under surface of wing and under quill-coverts dark brownish black.

Bill reddish orange; frontal shield more yellow; legs and feet

reddish; claws hornish brown.

"Bill light red, with a yellow frontal shield; legs and feet light red; irides brown-red. Native name Punæ." (Kubary.)

The single specimen described above, although marked by the collector, Mr. Kubary, as "young female," is apparently a fullgrown bird, and exhibits such great differences from the nearest allied genus Gallinula that we cannot avoid separating it as a well marked distinct genus. In its general appearance it much resembles Gallinula, but may be at once distinguished by the shortness of its wings, the shortness of its toes, and its nearly rudimentary tail. The bill agrees with that of Gallinula; but the frontal shield is not so far extended (as in G. chloropus), and, what is of some importance, the singular short velvet-like feathers of the lores advance towards the base of the nostrils into an acute angle, whereas in Gallinula they never reach the nostrils. The wings, as mentioned already, are very short, rounded; their feathers very soft, broad, at the end rounded; the third to the sixth quills equal and longest; the second and seventh somewhat shorter; the first one inch shorter than the fourth; the longest secondaries nearly reach the primaries; therefore scarcely any prominent wing-end exists. As regards this singular structure of the wings, Pareudiastes seems to be most nearly allied to Habroptila, but is quite different from Gallinula. The same is the case as regards the tail, which consists of narrow lax feathers, nearly rudimentary. Not less than the wings are the feet different. In Gallinula the middle toe is always longer then the tarsus, whereas in Pareudiastes the middle toe is considerably shorter; besides, the nails are also shorter and rather more curved than in Gallinula.

The eyes seem to be uncommonly large; and this, as well as the other peculiarities, gives some right to suspect that this remarkable form will exhibit also interesting peculiarities in respect to its habits, of which, unfortunately, Mr. Kubary tells us nothing. We are strongly of opinion that *Pareudiastes* is unable to fly, and hope to get more information about it next time from the discoverer.

A second specimen of *Pareudiastes pacificus*, forwarded in spirits, is apparently younger. It shows the shield dirty yellowish; the bill reddish brown, the tip darker brown; feet and legs reddish

horn-brown; claws horn-brown.

The measurements of this specimen are as follows:—

Long.		r	ostr. scu	t. rost.		tib.	dig.	Latit.
tota.				a rict.				
10"	4" 4""	$16^{\prime\prime\prime}$	$18^{\prime\prime\prime}$	15'''	$-19^{\prime\prime\prime}$	$6\frac{1}{2}^{\prime\prime\prime}$	16'''	$4\frac{1}{4}'''$

The pollex is armed with a short, sharp spine (spina pollicaris). The oil-gland is present, with some short feathers at the end. The loral region is feathered sparingly with short velvet-like feathers. Eyes large.

12. PORPHYRIO VITIENSIS, Peale; Finsch et Hartl. l. c. p. 172; id. Journ. f. Orn. 1870, p. 135 (Tonga).

P. samoënsis, Peale.

P. indicus, Cass. (nec Horsf.), Unit. St. Expl. Exp. p. 308.

It was Mr. Cassin who first declared the Porphyrio of the Navigator group to be identical with the Javan P. indicus, Horsf. Not having had an opportunity of comparing specimens from the Navigators, we followed the views of Mr. Cassin without hesitation, although every naturalist who takes a special interest in geographical distribution would consider it as a very strange fact to meet with a Javan species so far east, and this so much the more as the neighbouring Viti group is inhabited by a different species, P. vitiensis. In 1868 we got two specimens of Porphyrio from Upolu, collected by Dr. Gräffe, and comparing them carefully with specimens from Viti and Java, we became convinced that the Porphyrio from the Navigators is by no means the same as the Javan P. indicus, but in every respect like P. vitiensis, a species which we have since received also from the Tonga group. The collection of Mr. Kubary contains a single specimen from Savai, which agrees very well with a specimen from Upoln, except that the back is darker, more blackish olive-brown, a difference already mentioned by us after examining a specimen from Ovalou (l. c. p. 280).

We have no doubt that *P. vitiensis*, Cassin, was founded upon immature birds; for the differences pointed out by Mr. Cassin are chiefly based upon the "much smaller size," a character which is not constant, as remarked already in our book on the Central-Polynesian birds, where also the differences between *P. vitiensis* and *P. indicus* are carefully explained (p. 174). *P. vitiensis*, therefore, undoubtedly is the only species occurring in the Central Polynesian Islands, and *P. indicus* must be struck out of its avifauna. Its size, as usually

in Porphyrio, varies a good deal.

Long. al. 8" 0""	caud. 2" 10"	rost. incl. scut. 2" 4"	tars. 2" 11"	tib. 17"	dig. med. 2" 10""	(Savai.)
8 1 8 0-8 10	3 4	$\begin{array}{ccc} 2 & 6 \\ 2 & 1-2 & 4 \end{array}$	$\begin{array}{cccccccccccccccccccccccccccccccccccc$	15 18	$\begin{array}{ccc} 2 & 7 \\ 2 & 8-2 & 10 \end{array}$	· • ·

13. ACTITIS INCANUS (Gml.); Finsch & Hartl. l. c. p. 184. Two specimens in winter dress of this widely distributed species.

Long. al.	caud.	rostr.	tars.	dig. med.
Long. al. 6" 3""	211 9111	18'''	15'''	12''' (Savai.)
6 7	2 7			— (Savai.) ·
5 10-6 4		16-17		— (Savai, Grüffe.)
5 11	2 6	17	15	12 (Rarotonga.)

This species had already been sent from Savai in 1868 by Dr. Gräffe; amongst the examples were also specimens in summer dress.

Species from Rarotonga.

1. Monarches dimidiatus, sp. nov.

3. Supra sordide cinerascens, nonnihil fusco-variegatus; remigibus fuscis, rectricibus nigricanti-fuscis; subtus albus, loris interrupte fusco-nigricantibus; subalaribus et subcaudalibus albo fuscoque variis; pedibus plumbeis; rostro plumbeo-cæru-

lescente, apice et tomiis pallidis.

Q. Supra dilute fulvo-rufescens, subtus fulvo-albicans; uropygio nigricante vario, plumis omnibus basi nigricantibus; rectricibus pallide rufescentibus, parte apicali latius nigricante, rufescente limbuta; tectricibus alarum late rufo-marginatis, remigibus nigricantibus, rufescente stricte limbatis; subalaribus dilute rufis, subcaudalibus pallide fulvis; colli lateribus et pectore lætius vulpinis; rostro et pedibus sic ut in mari tinctis.

Long. circa 5" 7", rostr. $5\frac{1}{2}$ ", al. 3" 2", caud. 2" 5", tars. $8\frac{1}{2}$ ". Male. All the upper parts, cheeks and sides of the neck included, dark grey; rump and upper tail-coverts darker, blackish grey; an indistinct pale greyish line on the lores, continued more indistinctly behind the eye; all the underparts white, washed along the sides with grey; thighs and under tail-coverts blackish, tipped with white; under wing-coverts dark grey, margined with white; remiges dark brown, at the basal portion of the inner web margined with white; quill-coverts also dark brown; tail-feathers uniform blackish, darker at the quills; shafts of the mantle-feathers whitish; shafts of the remiges and rectrices black, pale from beneath.

Bill dark plumbcous-blue, at the tips and along the edges of the

mandibles margined with bluish white; feet dark plumbeous.

"Irides dark brown; bill, legs, and feet lead-colour." (Garrett.)

Another male has the upper parts darker, more slate-coloured, especially on the rump and upper tail-coverts, whereas a third male specimen shows the upper parts lighter, more decidedly grey than in the first described specimen; in this the underparts are also of a purer white, including the under tail-coverts, which are only at the

base dark grey.

Female. All the upper parts, sides of the neck, and head vivid rufescent fulvous, the feathers on the mantle and rump dark brown at the base; the rump, therefore, is variegated more or less with dark brown; all the underparts fulvous, but considerably lighter than the back, and at the middle of the vent nearly white; remiges dark brown, margined on the inner web with white; the primaries on the outer web with a broad pale fulvous margin, broader and paler towards the base, the secondaries with a narrow rufous margin along the outer web; coverts of the primaries and secondaries dark brown, margined and tipped with rufous; smaller wing-coverts fulvous like the back; tail-feathers fulvous, much paler on the inner web, on the apical third dark brown, this colour much paler on the external

feathers, which are margined with pale fulvous white; shafts of the remiges and rectrices dark.

Bill hornish black; feet dark plumbeous.

Another female shows the underparts much lighter, and the chin

variegated with some pure white feathers.

A third female is lighter above and beneath; the underparts are whitish fulvous, the same as the tail-feathers; the remiges and their coverts appear nearly uniform dark brown, having the fulvous outer margins very narrow and indistinct. Bill black, base of mandible yellow.

This unquestionably new species is typical. The totally different coloured female, as is usual in the members of this genus, resembles very much the female of *Monarches niger* (*Muscicapa lutea*, Gml.), but may be distinguished at once by its much smaller size.

Of the habits of this bird no notice is given by Mr. Garrett, who discovered it. The species is represented by M. niger in the Socie-

ties and Marquesas archipelagos.

2. APLONIS CINERASCENS, sp. nov.

Fusco-cinerascens; pileo pure fusco, loris holosericeo-fuscis: subtus distinctius grisescens; uropygii plumis et supracaudalibus fuscis, apice late cinerascentibus; remigibus et rectricibus fuscis; crisso et subcaudalibus sordide albidis; subalaribus pallide fusco-cinerascentibus; rostro et pedibus nigris.

Long. circa 7½", rostr. a fr. 9", al. 4" 6", caud. 2" 6", tars. 13".

Adult. Grey-brown; underparts paler and more decided grey, having the feathers at the end margined with grey; the feathers on the rump and upper tail-coverts also with greyish margins, which on the upper tail-coverts are nearly whitish, but not so distinctly marked as on the underside; head decided brown, with a slight coppery glitter; vent and under tail-coverts dirty white; under wing-coverts pale greyish brown, with whitish margins; remiges dark brown, on the margin of the inner webs paler; the inner secondaries with a very narrow pale margin along the outer vane, forming an indistinct pale stripe; tail-feathers dark brown; shafts of the remiges and rectrices blackish, pale from beneath; feathers of the mantle with very narrow pale shafts, which also are visible on the feathers of the breast. Bill and feet hornish black.

"Irides dark slate; bill, legs, and feet light bluish slate."

(Garrett.)

Four other specimens agree with the description above; in some the grey end-margins on the breast, rump, and upper tail-coverts are so indistinct as to be nearly wanting; and thus the whole bird appears to be of a more uniform brown.

Long. tota. alæ. caud. rostr. tars. dig. med. c. $7\frac{1}{2}$ 4" 3""-4" 8"" 2" 6""-2" 8"" $9-9\frac{1}{2}$ " 13-14" $9-9\frac{1}{2}$ " (5 specim.)

This typical Aplonis is so distinct in coloration and size that it can hardly be confounded with any other species. We need not, therefore, give any comparison.

3. Ptilinopus rarotongensis, sp. nov.

Supra psittacino-viridis; pileo intense violascenti-roseo, stricte flavo circumdato, fronte pallide fuscescente; scapularibus et alarum tectricibus saturate viridibus, marginibus externis dilute flavis; remigibus nigris, late viridi marginatis; subalaribus cinereo et flavido variis; rectricibus duabus mediis viridibus, reliquis pogonio externo viridibus, interno griseo-nigricantibus, omnibus apice late canescente, flavido limbato; gula sordide albida, colli lateribus, pectore superiore colloque postico dilute cærulescenti-cinereis, hinc inde virescenti-flavido variis, pectore inferiore abdomineque flavis, lateribus cinerascente adumbratis; macula indefinita epigastrii media vinaceo-purpurea; subcaudalibus flavis; rostro et pedibus plumbeis, illo apice pallido; iride flava.

Long. circa $8\frac{1}{4}$ ", rostr. a fr. $5\frac{1}{2}$ ", al. 5", caud. 3" 2", tars. 11".

Adult. Front and vertex purplish violet red, surrounded by a narrow indistinct line of yellow; occiput, sides of head, neck, crop, and upper part of breast delicate grey, the feathers of the latter bifurcated and with a pale yellow cross band; chin and middle of throat white, washed with pale yellow; breast and remainder of underparts yellow, purer on the vent and under tail-coverts, paler on the anal region; the sides washed with pale greyish green, the same as the feathered tarsus; on the middle of the lower portion of the breast a large spot of dark purplish red; back and upper parts vivid grass-green; primaries and their coverts on the outer web and end brilliant dark green, with a very narrow but distinct white margin, the inner web black; secondaries also dark green, but with a somewhat broader yellow margin along the outer web; coverts of the secondaries dark green, narrowly margined externally and at the end with vellow; larger shoulder-coverts brilliant dark green, broadly margined at the end with grass-green; wing beneath ashy grey; under wing-coverts delicate grey like the neck; tail dark green with a broad grevish-white end; the feathers, except the two middle ones, are on the inner web dark grey, crossed above the white end by a blackish cross band; the white end is margined narrowly with pale vellow; tail beneath dark grey, at the end broadly white.

Bill plumbeous, tipped with pale horn-colour; feet reddish brown;

nails dark.

"Irides yellow; bill brownish yellow; legs purple red." (Gar-

rett.)

In the young bird the vertex and hind neck are green, like the back; front and forehead covered with a pale violet-purple patch; sides of head and neck grey washed with green, the crop and upper portion of breast with greenish yellow; the underparts are of a less brilliant yellow; the sides darker greyish-green; the red pectoral patch is indicated only by some dirty purplish feathers; the pale